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ABSTRACT

This study investigates the suitability of a particular conceptual framework for preparing secondary teachers. The program was aimed at developing five basic teaching behaviors--planning, motivating, verbalizing, controlling-disciplining, and evaluating. Three major tasks were identified: 1) to redesign the structure of the existing program, 2) to work out arrangements with public schools for joint involvement in teacher education, 3) to organize and develop appropriate learning materials. The methodology was of two kinds: 1) the action research activities involving the teaching-learning activities carried out by a three-member team with two groups of students; and 2) the procedure for evaluating the results of the action research, in which ratings were made by each of the three investigators for each of the students involved. The statistical analysis of this data with respect to the development of the specified behaviors used the chi square technique. The chi square values for each of the behaviors and for a general rating of teacher behavior were significant at the .001 level. Thus the investigators rejected the null hypothesis that the teaching-learning activities in the particular conceptual-behavioral curriculum structure had no effect on the development of the desired teaching behavior. (MBM)

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Final Report

DESIGNING AND IMPLEMENTING A CONCEPTUAL-BEHAVIORAL CURRICULUM STRUCTURE FOR PREPARING SECONDARY TEACHERS

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SUMMARY

The project consisted of three major features, each of which was characterized by certain concepts and practices which may be conceived as alternatives to the existing pattern of pre-service preparation in secondary education. The three features of the framework were:

1. The Conceptual-Behavioral Curriculum Structure
2. The Two-level Preparation Sequence
3. Staff Organization and Instructional Procedures

Conceptual-Behavioral Curriculum Structure

The structure of the curriculum has as its central conceptual elements the five dimensions of teacher behavior identified earlier as: (1) planning, (2) verbalizing, (3) motivating, (4) controlling-disciplining, and (5) evaluating. These five behaviors were selected as fundamental to effective teaching after a review of the literature revealed them to be the recurring concerns of authorities. Each of these basic behaviors was further analyzed to identify the knowledge and abilities considered most relevant and necessary for their most effective performance.

The Two-level Preparation Sequence

The curriculum structure was designed to extend in a continuous, unbroken, sequential progression through two levels of instruction. This is in contrast to the traditional pattern of teacher education programs wherein students register and receive credit for discrete courses, i.e., Foundations of Education, General Methods, Tests and Measurements, Special Methods, etc. Experience has shown that too often a curriculum marked by separate courses offered in such fashion may result in the unplanned duplication of relevant or irrelevant content, or in serious ommissions of significant content and experiences, and therefore may not provide the continuity, comprehensiveness, and compactness that sound curriculum planning demands. The two-level sequential approach advocated in this proposal was intended to offer an alternative scheme which minimizes such possibilities.

The two levels of the sequence represented developmental stages preparatory to full-time professional practice. Level Two of this developmental sequence centered around student teaching as the direct pre-service laboratory experience. Level One was considered as preparation for student teaching.

Instructional unity of both levels was achieved by reference to the five conceptual-behavioral threads which constitute the structural elements of the curriculum. Instructional differentiation between the levels was achieved through the variety and contextual differences of learning activities provided. The concept of planning, for example, was introduced and developed at Level One through the experience of constructing a teaching unit, probably a first experience for all students. At Level Two the planning concept was augmented and tested by performance in a real classroom.

Under this arrangement, the supervisory role of the college supervisory staff tends to shift from that of visiting and observing a few random, and often non-representative samples of the student teacher's classroom performance, followed by an individual evaluation conference with the student teacher, to that of working more directly with and through the cooperative classroom supervising teacher in the capacity of a clinical curriculum and instruction specialist. This modified role definition appears to offer several advantages among which are greater efficiency in use of college staff, closer partnership arrangements with cooperating schools, and a more meaningful and productive experience for student teachers.

Staff Organization and Instructional Procedures

A basic assumption upon which this program was developed is that teacher education programs should practice what they preach. Therefore, a conscious decision was made to attempt to exemplify through the operational aspects of the program those very concepts and practices which constituted its substance. Another way of stating this idea is to say that the "content" of professional teacher education is concerned primarily with the "process" of teaching, and if this content is to be honestly and meaningfully portrayed for students, the instructors, themselves, must demonstrate in their own teaching behavior the knowledge and abilities which they expect their students to develop. Thus, the faculty members who planned this conceptual-behavioral curriculum were obliged to attempt to perform in an exemplary manner with respect to each of the major behavior dimensions. Translated into practice this has meant that the project was planned and taught by a faculty team of three; that each member of the team had instructional responsibilities consistent with his field of specialization; and that through the availability of the three members of the team during a relatively larger block of time a greater degree of flexibility was created to promote more highly individualized instructional procedures.

RESULTS

The statistical analysis of the data with respect to the development of the specified behaviors used the chi square technique. The chi square values for each of the specified behaviors and for a general rating of teacher behavior were significant at the .001 level. Thus the investigators rejected the null hypothesis that the teaching-learning activities in the particular conceptual-behavioral curriculum structure had no effect on the development of the desired teaching behavior.

INTRODUCTION

This study was designed to investigate the suitability of a particular conceptual framework for preparing secondary teachers. It stemmed from a belief (supported by the literature) that new approaches to teacher education are needed. It was based on the premise (again supported by the literature) that the most promising trend in improving teacher education is in the area of studying and developing the "act of teaching" or "teaching behaviors."

Any analysis of teacher education today which went at all beyond a nostalgic and self-supporting review of yesterday's and today's successes and improvements turned up clear and persistent indicators of change in teacher education programs. While these are interrelated, they may be loosely subdivided into three categories: (1) pressures from sources outside the teacher education program, (2) emerging patterns of K-12 organization and operation, and (3) recent developments within the field of teacher education itself.

Realizing that a complete retooling of the secondary teacher education program was not feasible in terms of time (curriculum committee, catalog dead-lines) and of total staff readiness for retooling, the study was designed to operate within the existing framework of courses and credits. The purpose was to explore and experiment with possible alternatives to and/or modifications of the present program that might better develop desired teacher behaviors, i.e., to produce better teachers.

Thus the proposal was made to structure a program aimed at developing five basic behaviors identified as involved in the act of teaching. These were planning, motivating, verbalizing, controlling-disciplining, and evaluating.

To accomplish this purpose three major tasks were identified. These were (1) to redesign the structure of our present program, (2) to work out arrangements with public schools for joint involvement in teacher education, and (3) to organize and develop appropriate learning materials.

METHODS

This study was designed to determine the suitability of (1) a given curriculum structure, (2) a given group of teaching-learning activities, and (3) a given set of teaching learning materials for preparing secondary teachers. The methodology was of two kinds. The first was the action research activities involving the teaching-learning activities. The second was the procedure for evaluating the results of the action research. The action research activities were carried out by a three member team with two groups of students each semester.

Group I consisted of students in the pre-student teaching phase of their professional education sequence. This group was composed of 29 first semester students and 16 second semester students for a total of 45 Group I students. Group II consisted of 29 student teachers in social studies. Of this total, 13 were first semester students and 16 were registered second semester. A grand total of 74 secondary education students participated in the experiment.

The students in Group I engaged in the following teaching-learning activities:

-lecture and discussion
-working through individual learning packages
-observing in the Campus School
-observing in the public schools
-tutoring individual secondary students
-unit and lesson planning
-test construction
-micro-teaching-reteaching with video taping for instructor and self analysis

The students in Group II were all engaged in a full semester of student teaching all day Monday through Thursday. On Friday they participated in a four hour seminar which stressed methods of social studies teaching and philosophy of education. The content of the seminar was related as closely as possible to the field experience of the students during the week.

The procedure for evaluating the results of the action research was to have ratings made by each of the three investigators for each of the students involved with respect to each of the five specified behaviors and a total composite rating. Each rating was based on the rater's judgment, and placed each student in the 1st, 2nd, 3rd, or 4th quartile of prospective teachers with respect to

the specific behavior being rated. The ratings of the three investigators were then averaged to determine a mean rating for each student on the behavioral criteria. The chi square test was applied to these data to test the null hypothesis that the experiences given these students had no statistically significant effects on their performance of the five behaviors. It was assumed that the participating students constituted a random sample, and on the basis of equal probability, the ratings of students would be distributed equally among the quartiles.

RESULTS

The results of the project in developing certain specific teaching behaviors within a conceptual-behavioral curriculum structure are presented in tabular form on succeeding pages. Inspection of the data shows a heavy concentration in the upper quartiles.

Using the chi square technique, the data was analyzed to test the null hypothesis that the college students who were prepared for secondary teaching in this project were no different from the general population of college students prepared for secondary teaching. It was assumed that the experimental students were a representative sample of the general population.

The null hypothesis was tested for each of the five specific behaviors: planning, verbalizing, motivating, controlling-disciplining, and evaluating and for the general rating given to all members of Groups I and II. This represented a total of twelve chi square values compiled. In all cases the chi square was significant at the .001 level. The values obtained ranged from a low of 15.54 to a high of 47.51. Thus the null hypothesis was rejected by the investigators with a high level of confidence.

GROUP I

PLANNING

Chi Square 18.16

f_o	f_e
16.00	11.25
20.33	11.25
5.67	11.25
3.00	11.25

MOTIVATING

Chi Square 23.36

f_o	f_e
15.00	11.25
22.33	11.25
6.67	11.25
1.00	11.25

VERBALIZING

Chi Square 15.54

f_o	f_e
18.00	11.25
17.00	11.25
8.00	11.25
2.00	11.25

CONTROLLING-DISCIPLINING

Chi Square 47.51

f_o	f_e
6.00	11.25
30.67	11.25
8.00	11.25
0.33	11.25

EVALUATING

Chi Square 23.61

f_o	f_e
12.33	11.25
23.33	11.25
8.67	11.25
0.67	11.25

GENERAL

Chi Square 18.69

f_o	f_e
12.33	11.25
22.33	11.25
7.67	11.25
2.67	11.25

GROUP II

PLANNING

Chi Square 23.57

f_o	f_e
5.33	7.25
18.00	7.25
5.33	7.25
0.33	7.25

MOTIVATING

Chi Square 17.68

f_o	f_e
4.00	7.25
15.33	7.25
6.67	7.25
0.33	7.25

VERBALIZING

Chi Square 20.92

f_o	f_e
4.00	7.25
17.33	7.25
6.67	7.25
1.00	7.25

CONTROLLING-DISCIPLINING

Chi Square 23.57

f_o	f_e
5.33	7.25
18.00	7.25
5.33	7.25
0.33	7.25

EVALUATING

Chi Square 23.44

f_o	f_e
4.33	7.25
17.67	7.25
7.00	7.25
0.00	7.25

GENERAL

Chi Square 23.17

f_o	f_e
4.67	7.25
18.00	7.25
5.67	7.25
0.67	7.25

CONCLUSIONS

1. The teaching-learning activities and materials used in conjunction with the conceptual-behavioral curriculum structure resulted in a significant development of certain specified teaching behaviors.

2. Through an innovative scheduling plan, increased and more intensive personal contact between students and instructors resulted in a more meaningful and productive teaching-learning relationship.

3. The students became more self-analytical with respect to their own teaching performance.

4. An instructional program which has professional skills development as its major objectives must provide appropriate opportunities for the practice and improvement of those skills.

5. This innovative program in undergraduate teacher education had positive cognitive and affective benefits for both the participating staff and the students.

RECOMMENDATIONS

1. This experimental approach should be expanded to larger numbers of secondary education students.

2. The students involved in this project should be followed up during their first year of teaching to determine how their performance compares with other first year teachers.

3. Further research should be done on the use of simulated observation experiences and of learning packages.

4. An experiment should be developed around the concept of a teacher education program based entirely on "mastering" certain specified learning tasks, rather than completion of certain specified courses.

FINANCIAL STATEMENT

	Total Anticipated Costs	Total Costs
Student help		
244 hours @ 1.30/hr.	390.00	317.20
Supplies and Equipment	1540.00	1082.65
See attached itemized list		
		1399.85

Itemized Supplies and Equipment

Far West Laboratory for Educational Research and Development--Kinescope--Minicourse 3, Effective Questioning in a Classroom Discussion	324.25
Carousel Cartridge Trays	34.60
Empty Reels for storing audio tapes	29.00
Film--"Teachers and Classes" Stanford School of Education	110.80
Empty reels for storing video tapes	177.00
Ampex Tape Exchange--Prepared tapes for AACTE	240.00
Vimcet Associates--Filmstrips	167.00
	1082.65